

Department of Defense

DIRECTIVE AD-A271 45

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July 27, 1989 NUMBER 421 4.15

USD(A)

SUBJECT: Hazardous Material Pollution Prevention

References:

- (a) DoD Instruction 7041.3, "Economic Analysis and Program Evaluation for Resource Management," October 18, 1972
- (b) DoD 7750.5-M, "DoD Procedures for Management of Information Requirements," November 1986, authorized by DoD Directive 7750.5, August 7, 1986
- (c) DoD 5025.1-1, "Department of Defense Directives System Annual Index," January 1989, authorized by DoD Directive 5025.1, December 23, 1988

A. PURPOSE

This Directive establishes policy, assigns responsibilities, and prescribes procedures for hazardous material pollution prevention (HMPP).

B. APPLICABILITY AND SCOPE

This Directive applies to:

- 1. The Office of the Secretary of Defense (OSD), the Military Departments, the Joint Chiefs of Staff (JCS), the Joint Staff, the Unified and Specified Commands, the Inspector General of the Department of Defense (IG, DoD), the Uniformed Services University of the Health Sciences (USUHS), the Defense Agencies, and the DoD Field Activities (hereafter referred to collectively as "DoD Components"). The term "Military Services," as used herein, refers to the Army, Navy, Air Force, and Marine Corps.
 - 2. Operations supported by appropriated and nonappropriated funds.

C. DEFINITIONS

The terms used in this Directive are defined in enclosure 1.

D. POLICY

It is DoD policy that hazardous material shall be selected, used, and managed over its life cycle so that the Department of Defense incurs the lowest cost required to protect human health and the environment. The preferred method of doing this is to avoid or reduce the use of hazardous material. Where use of hazardous material may not reasonably be avoided, users shall follow regulations governing its use and management as required by appropriate DoD issuances. In the absence of regulations, users shall apply management practices that avoid harm to human health or the environment. Emphasis must be on less use of hazardous materials in processes and products, as distinguished from end-of-pipe management of hazardous waste.

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E. RESPONSIBILITIES

- 1. The <u>Heads of DoD Components</u> shall know how the regulation of hazardous material affects their operations and how their decisions relative to hazardous material affect subsequent operations. They shall take actions to carry out the requirements of this Directive.
- 2. The <u>Assistant Secretary of Defense (Production and Logistics)</u> (ASD(P&L)) shall promote hazardous materials pollution prevention within the Department of Defense by ensuring that:
- a. Functional area DoD issuances (policies, Directives, Instructions, Regulations, Manuals, specifications, etc.) incorporate appropriate guidance on hazardous material issues.
- b. The DoD Components have effective programs for reducing the adverse effects of hazardous material.
- c. Adequate reporting exists to evaluate the results of actions taken to implement this Directive.
- d. Military Services and Defense Agencies are advised of areas needing more emphasis.
- e. Hazardous material issues affecting the stability of the industrial base are recognized and addressed.
- ${\it f.} \quad Information \ exchange \ on \ hazardous \ material \ improvements \ exists \ within the \ Department \ of \ Defense.$
- g. The Department of Defense cooperates with Federal, State, and local agencies promoting hazardous material reduction.
- h. The Defense Acquisition Board, Production and Logistics (DAB P&L) Committee periodically is apprised of the progress of implementation of this Directive and of any issues or conflicts related to hazardous material that may require the attention of the DAB P&L Committee in accordance with enclosure 2.
- i. Lead offices are designated, as necessary, to carry out those responsibilities.
- 3. The Assistant Secretary of Defense (Force Management and Personnel) (ASD(FM&P)) shall assist the ASD(P&L) in implementing this Directive in areas related to hazardous material that are under the purview of ASD(FM&P).
- 4. The <u>Secretaries of the Military Departments and the Heads of Defense</u> Agencies shall:
- a. Develop and revise, as necessary, a Hazardous Material Pollution Prevention Plan to implement this Directive, monitor implementation, and ensure that subordinate commands take appropriate actions to carry out the policy in section D., above.

b. Report progress on implementing this Directive to the ASD(P&L) and the ASD(FM&P).

F. PROCEDURES

- 1. The ASD(P&L), or designees, shall:
 - a. Ensure that appropriate OSD functional guidance exists on HMPP by:
- (1) Identifying hazardous material management issues for which functional guidance is needed.
- (2) In conjunction with the OSD proponent, determining the most appropriate vehicle for dissemination of functional guidance.
- (3) In the case where OSD functional guidance is needed, assisting the OSD proponent to develop that guidance.
- (4) In the case where Military Service or Defense Agency guidance is needed, advising the Service or Agency of the need and a possible course of action to satisfy the need.
- b. Ensure that a reporting mechanism or structure exists to provide the documentation needed to monitor implementation by:
- (1) Working with the Service or Agency lead office, designated in accordance with paragraph F.5.a., below, to obtain and compile appropriate information.
- (2) Avoiding an additional reporting burden through use of data and data systems used by the DoD Components to manage their own programs and such data as the DoD Components are required to provide to regulatory Agencies.
- (3) Making maximum use of computer-based management information systems to provide up-to-date data.
- (4) Requesting additional data only if information obtained in accordance with subparagraphs F.1.b(1), (2), and (3), above, is inadequate to evaluate the DoD Components' actions.
- c. Schedule and preside over annual status briefings presented by the Military Services and Defense Agencies. Give affected Military Services and/or Defense Agencies sufficient notice of their selection to provide a briefing and the topics to cover in the briefing.
- d. Prepare annual progress reports for and brief the DAB P&L Committee on the status of actions taken by the DoD Components, including the ASD(P&L), to implement this Directive.
- e. Periodically bring to the attention of the DAB P&L Committee any current hazardous material issue impacting DoD operations or any problem in implementing this Directive on which the DAB P&L Committee may need to take action, including advice from the DAB P&L Committee on priority of actions to produce OSD guidance.

- 2. The ASD(FM&P), or designees, shall assist the ASD(P&L), as appropriate, to conduct the functions described in subsection F.1., above.
- 3. Proponents of OSD functional guidance shall cooperate with the ASD(P&L) in integrating hazardous material guidance into their issuances by:
- a. Assisting the ASD(P&L), or designees, in determining the need for functional area guidance as required by subparagraph F.1.a.(3), above.
- b. When necessary, designating an action officer to be in charge of development of specific guidance (for which the ASD(P&L), or designces, shall provide assistance).
 - c. When necessary, incorporating guidance into appropriate DoD issuances.
 - 4. The Heads of DoD Components shall ensure that their organizations:
- a. Modify functional area efforts, procedures, guidance documents, or common practices to improve the way that hazardous material or the issues caused by hazardous material are managed.
- b. Where a document allows for the use of hazardous material or a process is using hazardous material and a less hazardous substitute is, or could be, available, revise the document, process or operating procedure, to facilitate the use of the substitute, in accordance with the policy in section D., above.
- c. Consistent with DoD Instruction 7041.3 (reference (a)), evaluate hazardous material decisions by economic analysis techniques that match the magnitude of the decision being made, considering cost factors and intangible factors, as applicable.
- d. Begin economic analyses of hazardous material decisions at the earliest possible stage of the life cycle and modify analyses when better information becomes available.
- e. Record, retain, and provide to appropriate authorities, as necessary, information that describes actions taken on hazardous material issues and the effect of the actions on the conduct of operations including, where possible:
- (1) Before and after data on hazardous material used or disposed and corresponding financial data, such as capital invested, return on investment, operating costs, and labor costs.
- (2) Records of work load, descriptive of mission, that allow comparison of hazardous material decisions on a production basis.
- (3) Narrative descriptions of actions and accomplishments, especially when actions, such as toxicity reduction or specification change, do not lend themselves to quantitative measure.
 - 5. The Heads of Military Services and Defense Agencies shall:
- a. Designate a lead office to coordinate their actions on this Directive.

- b. Cooperate with the ASD(P&L) effort, required in paragraph F.1.b., above, to obtain current information, including quantitative data, that describes the value of actions taken under this Directive.
- c. As requested by the ASD(P&L), as required under paragraph F.1.c., above, provide an annual briefing, accompanied by a briefing book, on selected aspects of actions taken to achieve hazardous material pollution prevention.

G. INFORMATION REQUIREMENTS

- 1. The Annual Progress Report included in this Directive is exempt from licensing in accordance with paragraph E.4.b. of DoD 7750.5-M (reference (b)).
- 2. All briefing and reporting requirements of this Directive are canceled at the end of 6 years from the effective date of this Directive, unless continued by formal revision to this Directive.

H. EFFECTIVE DATE AND IMPLEMENTATION

- 1. This Directive is effective immediately. Forward two copies of implementing documents to the Under Secretary of Defense (Acquisition) within 180 days.
- 2. Within 45 days from the effective date of this Directive, the Secretaries of the Military Departments and the Heads of Defense Agencies shall designate a lead office for coordinating implementation of this Directive.

D. J. ATWOOD

Deputy Secretary of Defense

Enclosures - 2

- 1. Definitions
- 2. DAB P&L Committee Charter

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DEFINITIONS

- 1. Alternatives. Ways of reducing the adverse effects of hazardous material.
- a. Alternatives, as applied to hazardous material decision-making, include, but are not limited to, such possibilities as substituting less hazardous or nonhazardous material; redesigning a component such that hazardous material is not needed in its manufacture, use, or maintenance; modifying processes or procedures; restricting users; consumptive use; on-demand supply; direct ordering; extending shelf-life; regenerating spent material; downgrading and reuse of spent material; use of waste as raw material in other manufacturing; and combinations of those factors.
- b. Alternatives are to be analyzed in a "could cost" approach. The decision-maker should consider what would be the lowest amount the decision could cost by overcoming barriers to getting the job done and at the same time ensuring protection of human health and the environment.
- 2. <u>Cost Factors</u>. The expenses and cost avoidances associated with hazardous material that may be reduced to monetary terms, which includes future liability.
- a. Cost factors refer to the direct and indirect costs attributable to hazardous material that are encountered in operations such as acquisition, manufacture, supply, use, storage, inventory control, treatment, recycling, emission control, training, work place safety, labeling, hazard assessments, engineering controls, personal protective equipment, medical monitoring, regulatory overhead, spill contingency, disposal, remedial action, and liability.
- b. Accounting in current decisions for potential future liability, such as might accrue because of a decision to landfill a hazardous waste, requires application of risk and uncertainty analysis. Potential future cost may be expressed as an expected present value or analyzed by sensitivity techniques. That does not mean an organization must stop lawful disposal until a major risk study is performed. However, current decisions should maximally consider the effects future environmental problems might have on future costs and defense performance.
- 3. <u>Economic Analysis</u>. An evaluation of the costs associated with the use of hazardous material and potential alternatives, which is conducted in accordance with DoD Instruction 7041.3 (reference (c)).
- a. An economic analysis is not a specific, step-by-step procedure that can be applied by rote to all cases of analyzing whether to use a hazardous material. Rather, organizations shall be guided by basic principles of economics and informed judgement. Any good engineering economy, decision analysis, or microeconomics text book may serve as a guide. An appropriately rigorous analysis of the costs and benefits of alternatives is a tool to help informed decision-making. The depth of analysis is a decision to be made by personnel who are employed to make such decisions. There is no one formula. There is no absolutely right way to do it.

- b. In making a decision on hazardous material with the help of economic analysis, DoD Components shall be guided by cases in court and legislation on hazardous materials that clearly establish that potential cost does not end with contractual change of hands of a regulated hazardous material.
- 4. Functional Areas. The operations or areas of responsibility that affect or are affected by the use of hazardous material. These areas include, but are not limited to, budget and fiscal planning; legal support; research and development; weapons systems acquisition; weapons systems maintenance; material and performance specifications and standards; design handbooks and technical manuals; maintenance and repair procedures; industrial processes; procurement policy; contracting provisions; new material identification; public works operations; construction; management of munitions, chemical agents, and propellants; medical and other personnel support; safety and occupational health; transportation; logistics analysis; supply; warehousing; distribution; recycling; disposal; spill prevention, control, and cleanup; contaminated site remediation; staffing; education and training; information exchange; public affairs; general administration; and oversight.
- 5. <u>Functional Guidance</u>. The inclusion in functional area issuances (Directives, Instructions, regulations, etc.) of the application of the basic principles of a functional area to the specific issues caused by hazardous material.
- a. Functional guidance is the type of information that is found in typical DoD issuances, applied specifically to hazardous material, where problems caused by hazardous material make such specific guidance necessary. Within OSD, functional guidance is usually promulgated in issuances covered by DoD 5025.1-I (reference (c)).
- b. An example of functional guidance would be the incorporation, into a supply policy directive, of the following statement:

"Wholesale inventories of hazardous material with a manufacturers shelf-life of 6 months or less shall not be maintained. Such material shall be procured for direct vendor delivery to the using activity. Retail inventory managers shall preclude disposal of hazardous material due to shelf-life expiration by maintaining minimum levels to support planned operations."

- c. Equally as important, but not as obvious, would be functional guidance that could be published in a comptroller issuance on how to account for the risk of future liability from hazardous waste disposal in conducting economic analyses.
- 6. <u>Hazardous Material</u>. Anything that due to its chemical, physical, or biological nature causes safety, public health, or environmental concerns that result in an elevated level of effort to manage it.
- a. There are numerous existing definitions of hazardous material in place for various reasons. In this Directive, the term hazardous material is used in the context of the management strategy to improve the quality of defense as

described in definition 9, below. For that purpose, hazardous material describes a universe of materials that cause the Department of Defense problems because of associated human health or environmental concern and for which management improvements may be made.

- b. This Directive establishes no new technical definition of hazardous material. It does not challenge any legal definition. It does not replace any existing administrative definition. What matters is not whether something fits precisely in a definition or whose definition it is, but whether it may be better managed to mitigate the problems it causes and improve the quality of defense.
- 7. <u>Intangible Factors</u>. Influences bearing on the use or effects of hazardous material, which may not be reduced to monetary terms.
- a. The quality of defense and the quality of environment both have intangible characteristics that are not mutually exclusive but which could be overriding factors in a hazardous material issue. Other intangible factors include public emotion and potential legislation.
- b. Factors that may not be reduced to monetary terms should be limited, in decision analysis, and then considered, as appropriate.
- 8. <u>Life Cycle of a Hazardous Material</u>. The period starting when the use or potential use of hazardous material is first encountered and extending as long as the actual material or its after effects, such as a discarded residual in a landfill, have a bearing on cost.
- a. In the case of weapons systems acquisition, the life cycle starts when the system is first envisioned. Effects of the use of hazardous material on later operations and maintenance are to be considered. The same holds true for a new use of a hazardous material by any DoD Component.
- b. Where the hazardous material is already in general use, the life cycle starts when the material is first encountered by any subpart of a DoD Component that must deal with it. Upon encountering the hazardous material or its effects, the DoD Component is not to be confined or constricted by what has gone before but must view its association with the material by what comes after, in terms of human health and environmental problems and their associated costs, and what alternatives that organization has to lessen those problems and costs.

9. Hazardous Material Pollution Prevention (HMPP) Plan.

- a. A HMPP Plan may take various forms including a typical plan of action and milestones outlining responsibilities, one or more Service or Agency regulations, a combination of efforts undertaken by various commands monitored by a common coordinating office, or other variations so long as the appropriate formal implementing document is issued.
- b. The HMPP Plan shall include, at a minimum, the following elements: procedures for informing Service or Agency line commanders of issues and progress; participation of critical functional staff offices such as systems acquisition, design, specification proponents, etc.; participation of major commands or primary field activities; provisions for reviewing functional issuances and making

appropriate modifications; a process for analyzing existing operations or processes for waste minimization potential; a method for funding waste reduction projects; a process for subordinate commands to report data that measures progress; a commitment to information exchange; and a policy of cooperation with public agencies involved in waste reduction, pollution prevention, or waste minimization.



THE UNDER SECRETARY OF DEFENSE

WASHINGTON, DC 20301

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Defense Acquisition Board

Production and Logistics Committee Charter

SUBJECT: Producti

Production and Logistics Committee

References: (a) DoD Directive 5134.1, "Under Secretary of Defense (Acquisition)," February 10, 1987

(b) DoD Directive 5000.1, "Defense Acquisition System," September 1, 1987

(c) DoD Instruction 5000.2, "Defense Acquisition System Procedures," September 1, 1987

(d) DoD Directive 5000.49, "Defense Acquisition Board," September 1, 1987

(e) DoD Directive 5105.18, "Department of Defense Committee Management Program," March 20, 1984

A. PURPOSE

This charter implements relevant sections of references (a) through (e) and establishes the Production and Logistics Committee as a standing operating committee of the Defense Acquisition Board (DAB) with mission, terms of reference, composition, responsibilities and authorities, operating procedures and administrative arrangements as stated below.

B. DEFINITIONS

- l. Department of Defense Acquisition System. A single uniform system whereby all equipment, facilities, and services are planned, designed, developed, acquired, maintained, and disposed of within the Department of Defense (DoD). The system entails establishing policies and practices that govern acquisitions, determining and prioritizing resource requirements, directing and controlling the process, contracting, and reporting to Congress.
- 2. <u>DoD Components</u>. The Office of the Secretary of Defense (OSD); the Military Departments; the Organization of the Joint Chiefs of Staff (OJCS); the Unified and Specified Commands; the Defense Agencies, to include the Strategic Defense Initiative Organization; and DoD Field Activities.

C. MISSION

The mission of the Production and Logistics Committee is to facilitate accomplishment of the responsibilities and functions

assigned to the Under Secretary of Defense for Acquisition USD(A). Operating in support of the Defense Acquisition Board and the USD(A), the Committee shall be the primary forum for DoD Components to identify and resolve issues and to develop recommendations on operating and policy aspects of the DoD Acquisition System for the following areas:

- 1. Production management;
- 2. Manufacturing technology; and '
- Logistics support.

D. TERMS OF REFERENCE

Specific tasks to be performed in accomplishing this mission include, but are not limited to:

- 1. Promoting coordination, cooperation, and mutual understanding of all matters related to assigned activities, particularly those involving cross-servicing, within DoD and between DoD and other Federal Agencies and with Allied Nations.
- 2. Recommending policy and procedural initiatives that streamline and improve the efficiency and effectiveness of the DoD Acquisition System.
- 3. Developing and assessing the potential of alternative near- and long-term acquisition strategies, plans, resource levels, and priorities.
- 4. Identifying issues and developing recommendations on policy and guidance matters.
- 5. Reviewing, studying, resolving, or developing recommendations on matters assigned by the DAB or USD(A), or selected by the Committee Chair.

E. COMPOSITION

- 1. Committee Chair. The Production and Logistics Committee Chair shall be the Assistant Secretary of Defense (Production and Logistics).
- 2. <u>Membership</u>. In addition to the Chair, permanent members will be senior civilian or military officials appointed by the following offices:
 - a. Organization of the Joint Chiefs of Staff
 - b. Under Secretary of Defense (Policy)
 - c. Assistant Secretary of Defense (Comptroller)
 - d. Assistant Secretary of Defense (Force Management and Personnel)
 - e. Assistant Secretary of Defense (Program Operations)

- f. Director, Defense Research and Engineering
- g. Director, Operational Test and Evaluation
- h. Air Force Acquisition Executive
- i. Army Acquisition Executive
- j. Navy Acquisition Executive
- k. Director, Program Analysis and Evaluation
- 1. Deputy Under Secretary of Defense (International Programs and Technology)
- m. Deputy Under Secretary of Defense (Tactical Warfare Programs)
- n. Director, Defense Logistics Agency
- o. Director, Strategic Defense Initiative Organization
- p. Deputy Director, Defense Research and Engineering (Test and Evaluation)
- Deputy Assistant Secretary of Defense (Logistics)
- Deputy Assistant Secretary of Defense (Production Support)
- s. Deputy Assistant Secretary of Defense (Systems)
- t. Chairman, OSD Cost Analysis Improvement Group
- 3. Invited Participants/Advisors. Representatives from DoD Components and other Government Agencies not listed above, at the invitation of the Committee Chair, may participate in committee activities involving matters in which that Component or Agency has a significant interest, or their presence is required because of the specific matters being addressed.

F. RESPONSIBILITIES AND AUTHORITIES

- 1. The Committee Chair, after ensuring that all matters have been comprehensively addressed, will forward recommendations to the DAB and DAE, and highlight disagreements and minority positions on all recommendations forwarded for decision.
- 2. Committee members are responsible for representing their Components on all matters addressed by the Committee and for proposing initiatives and issues for Committee consideration.
- 3. Unanimous agreement on matters in dispute shall be considered binding on all parties after concurrence of the DAB Chair.
- 4. The Committee Chair is authorized to establish panels and working groups to carry out Committee assigned projects and actions as may be necessary to discharge effectively the Committee's mission. Each panel or working group will have a "sunset clause" in its charter which will be reviewed annually by the Committee Chair.

G. OPERATION AND ADMINISTRATION

- 1. The Committee Chair shall:
- a. Direct and supervise the operations of the Committee;
 - b. Schedule and preside at Committee meetings;
- c. Appoint a Committee Secretariat and provide administrative assistance to support Committee operations and administration;
- d. Ensure agendas and topic documentation are prepared and distributed well in advance of scheduled meetings;
- e. Prepare and sign a memorandum for each panel and working group convened that provides the mission/task(s) to be accomplished, terms of reference, membership, and disestablishment date:
- f. Ensure appropriate reports are prepared as well as other documents and records of Committee activities;
- g. Ensure copies of the results of Committee meetings are prepared and distributed to all members and the DAB Executive Secretary as soon as practicable.
- 2. Matters addressed by the Committee may be directed by the DAB or USD(A), referred for action by the DAB Executive Secretary, or selected by the Chair from items submitted by Committee members.
- 3. The Committee shall operate in compliance with the provisions of DoD Directive 5105.18 (reference (e)).